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No. 80, Original

IN THE

Supreme Court of the United States

OCTOBER TERM, 1977

STATE OF COLORADO, *Plaintiff*

v.

STATE OF NEW MEXICO
AND TONEY ANAYA,
ATTORNEY GENERAL OF THE STATE OF
NEW MEXICO, *Defendants*

MOTION FOR LEAVE TO FILE REPLY BRIEF OF THE STATE OF NEW MEXICO AND REPLY BRIEF OF THE STATE OF NEW MEXICO

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June 4, 1982

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MOTION FOR LEAVE TO FILE REPLY BRIEF OF THE STATE OF NEW MEXICO

COMES NOW the defendant, State of New Mexico, pursuant to Rules 9(2) and 9(6) of the Rules of the Supreme Court of the United States, and hereby moves the Court for leave to file the attached Reply Brief. In support thereof, New Mexico states:

1. The State of New Mexico filed its Exceptions to the Report of Special Master and Brief in Support Thereof with the Court on April 8, 1982. The State of Colorado filed its Reply Brief of the State of Colorado on May 7, 1982.

2. The Reply Brief of the State of Colorado has presented this case to the Court under an erroneous legal theory on the basis of an incomplete discussion of the precedents in which the defendant is asserted to have the burden of proof in original actions.

3. In its Reply Brief the State of Colorado has distorted the facts in the record with respect to water usage from the Vermejo River in New Mexico and other matters critical to a determination of the issues in this case.

4. Colorado's brief contains an extensive response to points raised in New Mexico's brief. New Mexico must reply to points contained in Colorado's brief so that the Court can fairly appreciate the significance of the facts and legal points at issue in this case.

5. A decision of this Court based upon facts recited in Colorado's brief would be prejudicial to established property interests in New Mexico.

WHEREFORE, the State of New Mexico respectfully moves the Court for permission to file the attached Reply Brief of the State of New Mexico.

Respectfully submitted,

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REPLY BRIEF OF THE STATE OF NEW MEXICO

INTRODUCTION

The Reply Brief submitted by the State of Colorado on May 7, 1982, is based upon a biased, partial, and frequently incorrect recitation of the facts. It consists of evidence which minimizes existing requirements for Vermejo River water in New Mexico by reducing the amount of water appropriated by New Mexico interests to that occurring during a period of drought, disguises the drought conditions which affect all of New Mexico's water users, and excludes existing rights on the

Canadian River to which the Vermejo is tributary. It was derived in equal measure from an effort to manufacture equities in Colorado to support the Special Master's Report and to make credible the factual errors in the Report. For example, the Special Master states with respect to water use for the Vermejo Conservancy District that "[t]he system of canals used to transport the water to the fields is inefficient, resulting in a water loss which can run as high as 33%." (Special Master Report, p. 8).[1] This was used to support his conclusion that the District is infeasible. (Report, p. 7). In the Exceptions to Report of Special Master, New Mexico demonstrated that the Special Master had understood the evidence relating to irrigation efficiency conceptually backwards and found an unrealistically ideal efficiency of 67% for the District, (New Mexico Exceptions at 2), a conclusion which refutes the point that the Special Master is trying to make. Colorado attempts to correct the Master's error by arguing that the Master was referring only to the system of canals from the District's reservoirs to the farm headgates, (Colorado Brief at 64), rather than the entire system, including the canals from the diversion structure to the reservoirs. Colorado says "The Special Master correctly notes that the District's efficiency in getting water from the reservoirs to the farm headgate is roughly 33%." (Colorado Brief at 64). This effort is contrived. In fact, the Master referred specifically to the District's "system of canals." The statement is unqualified. It is not limited merely to canals from the reservoirs to the fields and thus refers to the entire network of canals serving the District including those from the river to the reservoir and the reservoir to the fields. The Special Master equated a low rate of loss with an inefficient system when the opposite is true. The evidence reflects that New Mexico estimated the loss from the system of canals to average 47½%, but stated that the loss can range from 35% to as

[1] The Special Master's Report shall hereinafter be referred to as Report.

high as 60%. (Tr. at 1280, 1315). Colorado adopted New Mexico's average loss rate of 47½% from the system of canals. (Colorado Exhibits 69, 70). The Master's statement does not reflect the evidence used by both states — only his own misunderstanding.

The fact of the matter is that the Master did not understand the evidence relating to efficiency, just as he failed to attribute significance to the uncontroverted facts relating to drought and the amount of acreage historically irrigated in New Mexico. Colorado's attempt to rectify the Master's errors profoundly distorts what occurred during the fact finding process. Colorado also distorts the record unfairly and prejudicially. Accordingly, we are compelled to respond.

Point I

THE PLAINTIFF HAS THE BURDEN OF PROOF IN ORIGINAL ACTIONS TO APPORTION INTERSTATE WATER.

In its Reply Brief, Colorado attempts to justify the Special Master's Report by arguing that New Mexico failed to sustain the burden of proving injury by C.F. & I.'s proposed diversions from the Vermejo River in Colorado. Colorado incorrectly states that the burden of proof in this original action rested upon the defendant, not the plaintiff.[2] (Colorado Brief at 1, 32-33). This argument is premised on the fact that the plaintiff in interstate water disputes has usually been the downstream state which

[2] While this is the position that is urged upon the Court at this time, in oral argument before the Special Master Colorado took a different position, arguing that in equitable apportionment actions "no side has a burden of proof" because the "matter is thrown open on the equities." (Tr. at 2887).

relies on the flow of water from upstream across the state line.[3] This fact has nothing whatever to do with the established order of burden of proof. Colorado has transformed a factual circumstance into a rule of law which reverses the recognized principles of this Court and requires the downstream state to bear the burden of proof regardless of the alignment of the parties. This is contrary to the Court's precedents placing the burden of proof in original actions on the plaintiff. In essence what the Court has done is to require the plaintiff state that is seeking to control conduct or to affect rights in another sovereign to justify its contentions. The purpose for this is clear. The Court is reluctant to allow one state to jeopardize existing interests in another.

In this case Colorado is required to prove two things: an equitable right to Vermejo water given the historical use made in New Mexico from the river, and that there is sufficient water to satisfy Colorado's proposed diversion without injury to New Mexico's uses. Because original actions over interstate water have involved suits by the downstream state to enjoin uses upstream, Colorado asks this Court to reverse the traditional standard of burden of proof and to analyze this case as if the defendant had the burden of proof despite the fact that the plaintiff, Colorado, seeks to curtail existing rights to Vermejo water in New Mexico. The significance of Colorado's argument is obvious. It suggests to the Court that a review of the record and of the evidence is irrelevant.

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[3] *Kansas v. Colorado*, 206 U.S. 46 (1907); *Wyoming v. Colorado*, 259 U.S. 419 (1922); *Connecticut v. Massachusetts*, 282 U.S. 660 (1931); *New Jersey v. New York*, 283 U.S. 336 (1931); *Washington v. Oregon*, 297 U.S. 517 (1936); *Nebraska v. Wyoming*, 325 U.S. 589 (1945). All were suits by downstream states with interests that were perceived as threatened by diversions in upstream states. *Colorado v. Kansas*, 320 U.S. 383 (1943), was the final phase in litigation between Kansas and its appropriators and Colorado over the waters of the Arkansas River. It was essentially an action in the nature of a bill of peace to end litigation which had proceeded intermittently for nearly forty years.

The burden of proof in original actions is simply stated. The burden of proof rests upon the complainant state, and must be satisfied by a standard that is much greater than that required to be borne by private parties. It was expressed in the case of *North Dakota v. Minnesota*, 263 U.S. 365, 374 (1923) in this way:

> In such action by one State against another, the burden on the complainant State of sustaining the allegations of its complaint is much greater than that imposed upon a complainant in an ordinary suit between private parties. "Before this court can be moved to exercise its extraordinary power under the Constitution to control the conduct of one State at the suit of another, the threatened invasion of rights must be of serious magnitude and it must be established by clear and convincing evidence." *New York v. New Jersey*, 256 U.S. 296, 309; *Missouri v. Illinois*, 200 U.S. 496, 521.

In two of the cases cited by Colorado, *Kansas v. Colorado*, 206 U.S. 46 (1907), and *Connecticut v. Massachusetts*, 282 U.S. 660 (1931), the downstream states were plaintiffs who had initiated actions designed to affect the use of water in upstream states with whom they shared the waters of interstate streams. In both cases the burden of proof was critical. In both cases the Court's opinion was based upon its evaluation of the extent to which that burden had been satisfied. In *Kansas v. Colorado*, the Court dismissed the bill filed by the State of Kansas on the grounds that Kansas had not proved the allegations in her complaint by a standard sufficient to restrain existing uses in Colorado. 206 U.S. at 117-118. In *Connecticut v. Massachusetts*, where Connecticut was seeking to enjoin proposed diversions in Massachussetts, the Court measured Connecticut's allegations entirely with respect to the standard of proof required of plaintiffs in original actions:

> The governing rule is that this Court will not exert its extraordinary power to control the conduct of one State at

> the suit of another, unless the threatened invasion of rights is of serious magnitude and established by clear and convincing evidence. *New York v. New Jersey*, 256 U.S. 296, 309. *Missouri v. Illinois*, 200 U.S. 496, 521. The burden on Connecticut to sustain the allegations on which it seeks to prevent Massachusetts from making the proposed diversions is much greater than that generally required to be borne by one seeking an injunction in a suit between private parties. *North Dakota v. Minnesota*, 263 U.S. 365, 374. 282 U.S. at 669.

Connecticut's bill was dismissed without prejudice to her right to maintain a suit against Massachusetts when it should appear that her substantial interests were being injured. 282 U.S. at 674.

In *Colorado v. Kansas*, 320 U.S. 383 (1943), the State of Colorado filed an original action to enjoin Kansas or Kansas appropriators from suing Colorado over waters of the Arkansas and to confirm the rights of the two states as determined by the judgment in *Kansas v. Colorado, supra*. The Court granted Colorado the relief that it sought. In determining that Colorado had met its burden of showing injury to its interests, the Court affirmed its reluctance to disturb existing developments based upon water use in another state. The Court held:

> On this record there can be no doubt that a decree such as the Master recommends, or an amendment or enlargement of that decree in the form Kansas asks, would inflict serious damage on existing agricultural interests in Colorado. How great the injury would be it is difficult to determine, but certainly the proposed decree would operate to deprive some citizens of Colorado, to some extent, of their means of support. It might indeed result in the abandonment of valuable improvements and actual migration from farms. Through practice of irrigation, Colorado's agriculture in the basin has grown steadily for fifty years. With this development has gone a large investment in canals,

> reservoirs, and farms. The progress has been open. The facts were of common knowledge. 320 U.S. at 394.

The error of Colorado's argument is clearly apparent by comparison with the facts in *Washington v. Oregon*, 297 U.S. 517 (1936). In that case, as in this, a suit to apportion the water of an interstate stream that was fully appropriated by the defendant state had been filed on the theory that the established uses of the defendant constituted a deprivation of the plaintiff's right to interstate water. The Court recognized that "[b]efore this court can be moved to exercise its extraordinary power under the Constitution to control the conduct of one state at the suit of another, the threatened invasion of rights must be of serious magnitude and it must be established by clear and convincing evidence." 297 U.S. at 522. In a situation not unlike that at issue here, the Court found:

> The case comes down to this: The court is asked upon uncertain evidence of prior right and still more uncertain evidence of damage to destroy possessory interests enjoyed without challenge for over half a century. In such circumstances an injunction would not issue if the contest were between private parties, at odds about a boundary. Still less will it issue here in a contest between states, a contest to be dealt with in the large and ample way that alone becomes the dignity of the litigants concerned. 297 U.S. at 529.

In this case, Colorado is attempting to accomplish what the Court denied to Washington. Colorado's position is urged without any evidence of prior right on the inaccurate contention that the defendant must bear the burden of showing non-injury. The Court must not be misled. Colorado failed either to establish that she has an equitable interest in the Vermejo that will justify out-of-priority diversions of 4,000 acre-feet per year or to present clear and convincing evidence that such out-of-priority diversions would not result in injury to existing uses in New Mexico.

Point II

COLORADO'S HYDROLOGICAL DESCRIPTION OF THE VERMEJO SYSTEM IS MISLEADING.

A premise of New Mexico's Brief in Support of Exceptions to the Report of Special Master is that average annual flows are not reliable evidence for evaluating the divertible supply of water available for use by appropriators in New Mexico. (New Mexico Brief at 32-34, 40-42). Divertible supply must be determined by consideration of monthly flows at the very least. As the Court has recognized, evidence composed of average annual flows like those contained in Colorado's Exhibit No. 5 is inherently deceptive because it does not reveal when water was present in the river or whether it was available in a form that is usable by owners of direct-flow water rights. (New Mexico Brief at 40-42). Of equal importance in this case is that the use of average annual flows by Colorado disguises the existence of chronic water shortages in the system. In accepting the conclusions urged by Colorado in Plaintiff's Exhibit No. 5, the Special Master has erred by adopting as the basis for his Report data which are hydrologically inaccurate. The result is legally indefensible.

Colorado states in its brief that "[w]hile New Mexico raises the question of 'dependable flow,' it never answers that inquiry, or suggests what might be a proper basis for resolving the question." (Colorado Brief at 68). In fact, New Mexico discussed this issue at length in argument before the Special Master and in supporting briefs. (Tr. at 1263, 1379; New Mexico Trial Brief at 43-47; New Mexico Reply Brief at 54-56). In this case, Colorado's use of average annual figures has had two results: the amount of water available for diversion by New Mexico users was distorted, and the drought conditions experienced by New Mexico appropriators was effectively hidden.

The dependable supply of water in the Vermejo is produced by the snowmelt runoff from the high elevation drainage area which flows down the river at a reliable rate during the early irrigation season. This water is produced in the Vermejo tributaries in Colorado during the spring and early summer. The amount of water produced in Colorado was shown to consist of 5,500 acre-feet by New Mexico's Exhibit No. F-20, the figures for which were tabulated in Exhibit No. F-36.[4] These exhibits constitute a determination based upon twenty-nine years of U.S.G.S. published streamflow data from the Vermejo River and four watersheds contiguous to the Vermejo drainage. The exhibits show the water produced within Colorado and relied upon by appropriators in New Mexico. Colorado has incorrectly stated that New Mexico relied upon records from "other drainages." (Colorado Brief at 5). In contrast, Colorado produced a figure of 8,400 acre-feet. (Colorado Brief at 4, 46; Plaintiff's Exhibit No. 5, Tbl. 4). This estimate was adopted by the Master. (Report, p. 3). Colorado represented to both the Special Master and to the Court that this figure is derived from "actual measurements" taken at three locations on Vermejo tributaries within Colorado over a four-year period. (Colorado Brief at 4). At most they are partial measurements conducted over a three-year period on the basis of questionable measuring techniques. The flumes installed by C.F. & I. were not calibrated by the U.S.G.S., nor were the records reviewed or published by the U.S.G.S. or the State of Colorado. (Tr. at 90-91). For some months, no measurements were taken at all because the flumes were washed out. (Tr. at 92). For several months one flume was installed incorrectly. No records were obtained during the winter months. (Tr. at 92). As a consequence, Colorado had to make

[4] New Mexico's Exhibit F-20, described as an altitude-runoff relationship, is a procedure which relates the mean elevation for a drainage basin with the known discharge from that basin. Several contiguous drainage basins are used to describe a relationship from which the discharge from a basin may be determined using the mean elevation of that particular basin.

correlations with the flow of Cucharas Creek, a drainage area to the north to obtain an estimate of flow in the three-year period 1977-1979. This is considerably less than "actual measurements" for the period discussed. This correlated flow was then correlated again with published U.S.G.S. figures from the gage on the Vermejo at Dawson, New Mexico, to obtain an estimate of the flow produced in Colorado over a 25 year period.[5] The result was a correlation based on incomplete and faulty data containing one other highly tenuous correlation.

Colorado's estimate is thus flawed in two critical respects. During trial in Santa Fe, data derived from New Mexico's altitude-runoff relationship was compared to Colorado's estimates of streamflow in the tributaries at the state line. (Tr. at 1248-1251). The comparison revealed that the total production of water from the Little Vermejo Creek at the state line computed by Colorado was comparable with data obtained in New Mexico's altitude-runoff relationship, but that the flows estimated by Colorado for Ricardo Creek at the state line exceeded New Mexico's figures by approximately 3,600 acre-feet per annum. There are three explanations for this. The first is the paucity of actual measurements obtained by C.F. & I. Secondly, with only sixteen months of record Colorado built a three year record of flow on the Vermejo by correlation with Cucharas Creek. (Tr. at 188). Thirdly, using these three years of correlated record, Colorado then constructed twenty-two years of record for Vermejo flows at the state line by another correlation with the Vermejo at Dawson.[6] (Tr. at 201). In other words, Colorado produced a twenty-five period of flow of the Vermejo at the state line from two correlations using, in one of them, a very short period containing three years of correlated record.

---

[5] The 25 year period presented to the Special Master was 1955-1979 (Plaintiff's Exhibit No. 5, Tbl. 4); in Colorado's brief before this Court, the period was altered to 1956-1980. (Colorado Brief at 5).

[6] It would be fortuitous, at the most, if the three year period used during trial (1977-1979) of correlated record encompassed the range of flows over a 25 year period of record.

On the basis of this unreliable computation Colorado argues that the Special Master's recommendation would result in Colorado taking only "about one-half, (of water produced in Colorado) i.e., approximately one-fourth of the Vermejo River virgin flow." (Colorado Brief at 6). Using New Mexico's analysis, Colorado would be taking 73% of the 5,500 acre-feet of water produced in Colorado that is essential for New Mexico's appropriators.

In previous equitable apportionment decisions, the Court has comprehended the distinction between average annual flows and divertible supply in a way that is directly applicable to the Vermejo. This distinction is fully supported by the testimony of New Mexico's farmers.

The Court has repeatedly held that to ignore the dry years in the record will not produce an estimate of a dependable yield, but rather an estimate of water supply that may never materialize. *Wyoming v. Colorado*, 259 U.S. 419, 471, 476 (1922); *Colorado v. Kansas*, 320 U.S. 383, 396-397 (1943); *Nebraska v. Wyoming*, 325 U.S. 589, 620 (1945).

In *Colorado v. Kansas, supra*, the Court described the "critical matter" as "the amount of divertible flow at times when water is most needed for irrigation. Calculations of average annual flow, which include flood flows, are, therefore, not helpful in ascertaining the dependable supply of water usable for irrigation." 320 U.S. at 396-397. The Court has drawn a clear distinction between "divertible flow" during the irrigation season and "average flow" which also reflects a surplus of water during times of flood and the late summer months when it is largely unusable for direct flow irrigation. The use of averages will simply not disclose whether the water was there when it was needed; the point was emphasized further by the Court in *Wyoming v. Colorado:*

> Colorado's evidence, which for convenience, we take up first, is directed to showing the average yearly flow of all

> years in a considerable period, as if that constituted a proper measure of the available supply. We think it is not a proper measure, and this is because of the great variation in the flow. (259 U.S. at 471).
>
> Crops cannot be grown on expectations of average flows which do not come, nor on recollections of unusual flows which have passed down the stream in prior years. Only when the water is actually applied does the soil respond. (259 U.S. at 470).

Colorado's evidence of New Mexico's divertible supply consisted entirely of average annual flow. (Plaintiff's Exhibit No. 5, Tbls. 2 and 10). As stated in the Reply Brief, Colorado concludes that the "average annual flow" for the entire period of record at the Dawson gage is 12,919 acre-feet. (Colorado Brief at 3).

New Mexico's evidence displayed the fact that New Mexico's direct-flow appropriators (those who divert directly from the flow of the river) were unable to utilize flood waters contained in Colorado's evidence. As one user, Mr. Pompeo, testified:

> A. I heard a lot about amount of water since yesterday flowing down the Vermejo River, small amount, large amounts, average amounts. In my operation it's a direct flow thing and I cannot use flood waters.
>
> I'm talking about debris-filled, sandy type of water. This ruins my fields, does more damage than I can get out of it.
>
> Q. You are saying flood waters are this kind of water, contain debris and sand?
>
> A. Yes. (Tr. at 2199).

It was therefore our objection to Colorado's evidence that its studies presented to the Special Master were composed entirely of average annual flows that created the impression that there was sufficient water to satisfy New Mexico's appropriations by distorting the amount of water available for use in New Mexico. Although the Special Master has acknowledged that average annual flow data is not helpful in determining the availability of a dependable supply, (Report, p. 19), his Report has adopted Colorado's evidence by stating that there is sufficient water available for diversion by Vermejo Park Corporation, Kaiser Steel, and Phelps Dodge after diversions in Colorado. This is clearly in error. New Mexico's evidence showed that the consequence of diversions in Colorado would have a detrimental impact upon the water available for diversion in New Mexico and would further exacerbate the historic shortages of the water users in New Mexico. With respect to the Vermejo Conservancy District, an award of water to C.F. & I. in Colorado "could well spell the end of their farming operations." (Tr. at 1381). In addition, the consequence of a taking by C.F. & I. from the upper tributaries of the Vermejo River "can effect at least water users as far downstream as Ute Reservoir" on the Canadian River. (Tr. at 1382). *See* New Mexico Brief at Point II.

The issue of annual average flows is equally important in that average flows fail to show the existence of shortages and drought like that experienced on the Vermejo since the early 1970's. While both New Mexico's technical exhibits and the testimony of the water users provide conclusive evidence of drought conditions, that evidence is hidden by Colorado's use of average annual figures.

Defendants' Exhibit No. F-30, which relies upon Colorado's own figures for water production in Colorado, indicates that any diversions in Colorado during periods of low flow will result in

shortages to Kaiser Steel and Vermejo Park Corporation.[7] Defendants' Exhibit No. F-37 shows that the Vermejo Conservancy District has historically received only 57% of the water supply necessary to irrigate its project acreage. Defendants' Exhibit No. F-31 shows that annual shortages to the Arch Hurley Conservancy District on the Canadian River average 19% of the irrigation demand.

More importantly, however, the testimony of New Mexico's farmers provides unequivocal evidence of shortage beginning in the early 1970's. Mr Carl Odom testified:

> Q. In your experience with farming and ranching in this region have you noticed there has been a decline in Vermejo River waters?
>
> A. Yes, sir, there has been.
>
> Q. When has that been?
>
> A. It started in the early '70's, and after the flood in '65.
>
> Q. If you were able to irrigate the full amount of acres for which you have a water right which is 264 acres, would you do so?
>
> A. Yes, sir. (Tr. at 2214).

Mr. Jiggs Porter testified that in "the last few years it (the Vermejo) seems to be decreasing steadily." (Tr. at 2179). He testified that it is occasionally dry in places. (Tr. at 2178). Mr. Joe Armijo testified to decreasing flows in the Vermejo in the early 1970's in contrast to those he observed when he was first employed on the Vermejo Park Corporation property in 1963. (Tr. at 2124, 2129). Mr. Joe Pompeo testified to shortages that he experienced. (Tr. at 2202). Mr. Leonard Knox of the Vermejo Conservancy District Board of Directors testified to the

[7] This is confirmed by New Mexico's Exhibit No. A-130, the seepage investigation, which demonstrates that 94% of the water in the Vermejo River at York Canyon comes from the Colorado portion of the drainage. (New Mexico Brief at 35).

shortages experienced by the farmers of the District. (Tr. at 1810-1812). This is the testimony the Master should have considered. It provides direct evidence of shortage from those with experience of farming from the Vermejo.[8]

Colorado's hydrological evidence fails to provide an accurate picture of the Vermejo River. The evidence presented by Colorado at trial inflates the dependable flow at the state line, confuses divertible supply of water with average discharge and masks the existence of chronic shortages. The picture that is derived from this evidence is intended to convice the Court that the Special Master's recommendation will not be injurious to New Mexico. In sum, Colorado's analysis was not scientific, but rather self-serving and selective; not empirical and deductive, but rather the product of utilizing only those facts which would support a pre-conceived conclusion.

Point III

COLORADO HAS DISTORTED THE FACTS OF WATER USE FROM THE VERMEJO RIVER IN NEW MEXICO.

Colorado's description of historical water use and existing requirements for Vermejo water in New Mexico contains distortions of the record that are misleading to the Court. If not corrected, they would provide the basis for a decision that is contrary to the evidence and destructive to existing property interests in New Mexico. Throughout this case, Colorado has sought to convey the impression that New Mexico interests are wasteful and inefficient and have deliberately declined to use available water to satisfy their decreed rights. In the brief filed

[8] Colorado's suggestion that New Mexico's farmers were untruthful in their testimony of shortage and water supply, (Colorado Brief at 75), is scandalous. New Mexico's farmers are individuals with years of experience on the river. Colorado's witnesses have only a brief and academic familiarity with the Vermejo.

before this Court on May 7, Colorado's argument took the form of describing the inchoate right decreed to C.F. & I. as the equal of actual uses of nearly 100 years standing in New Mexico, and of misstating the extent and nature of New Mexico's rights.

The basis of Colorado's argument with respect to the conditional right decreed to C.F. & I. on May 12, 1975, is found on pages 7-8 of its Reply Brief. It is asserted that this right is owned by a "Colorado appropriator" and that its exercise would help alleviate water shortages by being used for a variety of purposes in the Purgatoire Valley. Two points should be made. First, Colorado has used the word "appropriator" in error because there are no appropriations of Vermejo water to beneficial use in Colorado. (Report, p. 17,21). The conditional right decreed to C.F. & I. in 1975 has never been exercised. (Tr. at 570-573, 2788, Report, p. 17,21). Although Colorado has described diversion points on the Vermejo within Colorado as though they existed, (Colorado Brief at 6), these are merely decreed diversion points, unlike those in New Mexico which exist on the stream. (Tr. at 91).

No use for which the water would ultimately be applied in Colorado exists at this time. With the exception of the interim agricultural purpose, each is a proposed, future use. At the time C.F. & I. first applied for a water right, these proposed uses were considered too speculative and uncertain by the water court and resulted in the denial of C.F. & I.'s application. (Tr. at 731-732).

> (Mr. Simms) On page 32 of your deposition in this regard you answered my question — let me read the question, "All of those that we have listed," uses, I mean, "as far as I understand, do not now exist; the coal washery, for instance, does not"?
>
> In answer you said, "The coal washery does not, the power does not presently exist; the residential, the domestic, as

such, does not presently exist; the synthetic fuel picture, that, of course, does not exist as the present (sic) day requirement." (Tr. at 784).

* * *

(Mr. Adkins) So in answer to your question, today at this moment, the situation is as I stated there, the coal washery does not exist, the domestic use does not exist, the sawmill operation is not on line today, and therefore, at this immediate moment, the only use would be agricultural. (Tr. at 785).

While C.F. & I. intends to apply water to its agricultural property in the Purgatoire, that would be strictly an "interim use." (Tr. at 745). The Ricardo project could not be justified by that use:

(Mr. Adkins) I believe in my deposition you raised a somewhat similar question, and I believe I stated to you that if we were depending on the income from agricultural operations, there is no way in the world that you could justify or amortize the cost of this project. (Tr. at 762).

C.F. & I.'s interest as represented by the conditional right is therefore one that is in the nature of future developments unsupported by present uses. The reality that lies behind the exhibits and the rhetoric is this: nothing currently exists except an agricultural use that will not justify the cost of the project. Colorado comes to this action without existing uses from the Vermejo on behalf of one citizen, the C.F. & I. Steel Corporation, which has only anticipated uses for Vermejo water. Colorado's entire purpose in describing the owner of an unexercised conditional right as an "appropriator" is transparent. In equitable apportionment actions between western

states, the Court has not considered future or prospective uses as equities. (New Mexico Brief at Point I). Indeed, the Court has held that *"the interests of the State are indissolubly linked with the rights of the appropriators." Wyoming v. Colorado*, 259 U.S. 419, 468 (1922), emphasis added.

Secondly, the problems of the Purgatoire Valley have no bearing in this action. The Purgatoire Valley is not within the drainage of the Vermejo River. It lies adjacent to it, across the drainage divide. It therefore has played no role in the development of water use on the Vermejo. The water which C. F. & I. proposes to use would be transported to the Purgatoire by means of a transmountain diversion. While it is clear that shortages exist on the Purgatoire, they have no relevance to the Vermejo, which must contend with shortages of its own.

Although Colorado has sought to create a basis in equity for diverting Vermejo water into the Purgatoire system, (Colorado Brief at 47-48), to sustain "an existing economy beset by chronic water shortages," the shortages experienced in the Purgatoire result from the lack of responsible water regulation by Colorado officials. Contrary to New Mexico, where a showing of available water is necessary to effectuate a new appropriation of water, Sections 72-5-1; 72-12-3 (N.M.S.A. 1978), in Colorado no such requirement exists. (Tr. at 594-596). The consequence is that there is a proliferation of paper rights in Colorado which bear little relationship to the hydrology of the rivers. This is demonstrated on the Purgatoire by Colorado's Exhibit No. 14-5 and the testimony of Dr. Danielson, the Colorado State Engineer, who stated that demand exceeds the supply on the Purgatoire 99.5% of the time. (Tr. at 534). Stated differently, "at least 50 percent of the time," [the Purgatoire] "is overappropriated 800 percent." (Tr. at 537). There is no basis in equity to require New Mexico to compensate for this system of

water administration. Indeed, it would be highly inequitable to do so. In addition, Colorado's argument is deceptive on its own merits. While Colorado argues that the Vermejo water would "augment existing supplies of these local entities" on the Purgatoire, (Colorado Brief at 49), under Colorado law the water would be foreign or imported water which C.F. & I. could fully consume without obligation to make return flows available to any other user. *City & County of Denver Bd. of W.C. v. Fulton Irr. D. Co.*, 179 Colo. 47, 506 P.2d 144 (1973).

Equally disturbing is Colorado's distortion of New Mexico's interests to minimize the acreage irrigated by existing New Mexico uses and to inflate the amount of water available for the District. The result appears to make water available for C.F. & I.'s proposed diversions. The data assembled in the table on page 9 of Colorado's brief are not consistent. In the column headed "Acres-Irrigated" the numbers for Vermejo Park (250) Phelps (150) Pompeo (50) Porter (14) and Odom (113) are Colorado's estimates of the acreage irrigated by these entities which reflect the drought conditions of the 1970's. These estimated acreages are considerably less than those decreed in *Phelps Dodge Corp. et al. v. W. S. Land & Cattle Co.* (Colfax County Cause No. 7201, 1941). The numbers for Messick (48.4) and Vermejo Park (46.73) are the acreages decreed in *Phelps Dodge, supra.* The number for the Vermejo Conservancy District (4,379) is the average acreage irrigated taken from the Bureau of Reclamation annual statistical report summarized in Defendants' Exhibit F-37. The numbers in the column headed "Amount of Water" for all the irrigation entities except the Vermejo Conservancy District consists of the acreage listed in the first column multiplied by 2. The source of the number 2 is apparently the decree in *Phelps Dodge, supra,* which fixes a duty of water (applied on the land) of 2 acre-feet per irrigated acre.

However, for the Vermejo Conservancy District the number given for amount of water is Colorado's estimate of the average annual amount of water diverted to the District at its diversion points, 14,535 acre-feet. In other words, for each of the other irrigation users Colorado has made a computation for water delivered on the land, but for the District Colorado has made a computation for diversion from the river thus attempting to inflate the amount of water available to the District by comparison with the other users.

The first diversion in New Mexico is made by the Vermejo Park Corporation. Colorado states that Vermejo Park Corporation irrigates only 250 acres of land (Colorado Brief at 9,67), and that this "was by choice, not the result of water limitations." (Colorado Brief at 67). Reference is made to two places in the testimony of Mr. Jim Charlesworth, the Manager of the property — Tr. at 2068, 2097. In neither instance did Mr. Charlesworth describe the irrigation of the 250 acres at Vermejo Park as being "from choice." On the contrary, he testified that this amount of acres was irrigated as a result of drought conditions over which he had no control. He specifically testified at trial of his efforts to irrigate more property, (Tr. at 2084), and that he would irrigate all 870 acres if water were available. (Tr. at 2077-2079).

> Q. Why aren't you irrigating more acres?
>
> A. Well, as I have repeatedly stated, each year in a majority of the years since Pennzoil has owned Vermejo Park, since Vermejo Park bought the property, we have tried to develop additional acreage to grow the crops that are necessary for us.

> We can get one watering on them, but the predictability of getting another watering on them or two more waterings on them is nearly impossible. It has proven impossible. (Tr. at 2077-2078).

Colorado states that the Kaiser Steel use has been no more than 361 acre-feet, that occurred in 1976, and that since then the use has actually decreased. (Colorado Brief at 11). Colorado states that Kaiser's witness, Mr. Taylor indicated uncertainty as to whether Kaiser would increase their operation beyond its current size. (Colorado Brief at 10). In fact, Mr. Taylor testified to exactly the opposite:

> We are constantly, just like everybody else, trying to expand our coal business. We know you can't expand without water to expand with.
>
> We have got rights that we are trying to utilize and utilize those to the fullest. We picked up rights through the same procedure we have gone through before, purchase these rights on the existing system, go through the State Engineer for approval, and we have rights in Springer to expand above roughly twice what we are doing now. (Tr. at 1746-1747).

This is supported by testimony of the minable reserves on Kaiser's property. (Tr. at 1750).

Colorado argues that the Vermejo Conservancy District is of such questionable validity that "it has paid virtually nothing on the principal and no interest on its indebtedness," (Colorado Brief at 12), and "continuously failed to make any appreciable payments on the over $2,000,000 indebtedness." (Colorado Brief at 57-58). In fact, the District has made payments on its indebtedness. Payments were made in 1966, 67, 68, 69, 70, 71, 72, and 73. Partial payments were made in 1974 and 1975. (Tr. at 1519).

Colorado argues that the Vermejo Conservancy District irrigated an average of 4,147.4 acres per year for the years 1970 through 1979. (Colorado Brief at 66). This is said to be "perhaps the most conclusive refutation of the contention by New Mexico that there wasn't enough water for the senior priorities of Phelps-Dodge and Vermejo Park Corporation to irrigate more than 150 acres and 250 acres respectively during the 1970's." (Colorado Brief at 66). The evidence shows that during the 1970's the acreage irrigated by the District ranged from a high of 6,662 acres to a low of 665 acres in 1977. By using an average figure for a ten year period, Colorado has disguised both drought conditions and availability of water in any given year. Colorado's use of average irrigated acreage is also deceptive with regard to the District's water supply.[9] The true measure of the District's water supply is in their annual water proration for water delivered to the farms. Defendants' Exhibit F-37 lists the District's water prorations for the period 1955-79. The drought for the 1970's is obvious in the District's annual water prorations.

Colorado has made the argument that injury to the District would be mitigated by the implementation of conservation measures. (Colorado Brief at 53-55). Colorado computes that a total of 2,000 acre-feet would be saved by the District, offsetting the effects of diversions of 4,000 acre-feet in Colorado. (Colorado Brief at 52). What Colorado does not describe is that the District has undertaken a study for a closed water system that would conserve water which would be used to relieve a portion of the chronic shortages which exist in the District. The testimony shows that approximately 600 additional acres could be irrigated

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[9] Colorado states that only an average of 3,575 acre-feet were actually applied to beneficial use on the District's lands. (Colorado Brief at 61). Colorado's own evidence shows that the amount applied to beneficial use was an average of 4,755 acre-feet (Colorado Exhibit No. 71). The contradiction is not explained, but Colorado has urged the lower figure on the Court to minimize the District's right.

with such a system. (Tr. at 2766). However, the effect of Colorado's argument would be to restrict the District to the irrigation of what Colorado has inaccurately computed to be the District's right, and to prevent it from irrigating the full 7,380 acres of project land.

Colorado maintains that any injury to New Mexico would be limited by a strict administration of the Vermejo by New Mexico water officials, (Colorado Brief at 51), who should "carry out their statutory duties to declare that rights upstream, or portions thereof, have been forfeited or abandoned." (Colorado Brief at 51). It is a basic tenet of New Mexico water rights administration that decreed rights are not subject to forfeitures or abandonment for drought conditions beyond the control of the users. *See, e.g., Chavez v. Gutierrez,* 54 N.M. 76, 213 P. 2d 597 (1950). As the evidence has shown, those conditions exist on the Vermejo. As explained by New Mexico's witnesses, there is ordinarily no need for constant governmental surveillance of water use in New Mexico. (*E.g.,* Tr. at 1063-1064, 2416-2417). While drought and shortage may make life difficult for water users, it is our experience that they can and do govern themselves. *Id.* When administrative intervention is needed, however, New Mexico law is more than adequate.

> Supervision of apportionment of water in accordance with licenses and court decrees is vested in the State Engineer. Sec. 72-2-9 (N.M.S.A. 1978). He may create or change water districts from time to time when necessary. Sec. 72-3-1 (N.M.S.A. 1978). Upon written application of a majority of water users in a water district, the State Engineer appoints a watermaster who has immediate charge over the apportionment of water (under the general supervision of the Engineer) and he shall so appropriate, regulate, and control the waters as to prevent waste. In the absence of such an application, the State Engineer may

appoint a watermaster for either temporary or permanent service if local conditions require it. Sec. 72-3-2 (N.M.S.A. 1978). The watermasters are to report such information to the State Engineer as he may require, such as the adequacy or inadequacy of the water supply, and the State Engineer shall correct any errors of apportionments as may be needed. Sec. 72-3-5 (N.M.S.A. 1978). During the existence of an emergency, and only during such time, he may employ assistants to serve under a watermaster. Sec. 72-3-4 (N.M.S.A. 1978). Any person may appeal from the acts or decisions of a watermaster to the State Engineer and thence to the district court. Sec. 72-3-3 (N.M.S.A. 1978). [2 W.A. Hutchins, *Water Rights Laws in the Nineteen Western States*, 528 (1974)].

Intervention has not been needed on the Vermejo River. (Tr. at 2417). It is well known that New Mexico is "a state with some of the strongest laws and best enforcement in the arid West...." (Blundell, Wall St. J., May 1, 1980, at 1, col. 1).

Point IV

COLORADO'S DISCUSSION OF THE LAW OF EQUITABLE APPORTIONMENT IGNORES THE PRIMARY EQUITIES CONSIDERED BY THE COURT IN EQUITABLE APPORTIONMENT LITIGATION.

Colorado's discussion of the law of equitable apportionment is remarkable for its effort to establish an equitable basis for the Special Master's recommendation. New Mexico is criticized for relying on the principle of prior appropriation as the basis for decision in equitable apportionment actions between appropriation jurisdictions, (Colorado Brief at 14-15), and for

not discussing two eastern cases: *Connecticut v. Massachusetts*, 282 U.S. 660 (1931) and *New Jersey v. New York*, 283 U.S. 336 (1931). (Colorado Brief at 24). In the first instance, our argument is based upon the Court's "guiding principle" as enunciated by Justice Douglas in *Nebraska v. Wyoming*, 325 U.S. 589, 618 (1945). This is entirely appropriate as it provides the most equitable result. In asking the Court to consider priority of appropriation as merely one of many considerations, Colorado asks the Court to minimize the one factor that most clearly reflects the economic and social reliance that results from the appropriations of water in the western states and which creates equities that the Court has sought to protect.

In both *Connecticut v. Massachusetts, supra*, and *New Jersey v. New York, supra*, the Court's basis of decision sheds little light on the facts in issue here. Both cases reflect a dispute between riparian jurisdictions over unappropriated water. In neither case can Colorado cite precedent which is applicable to the Court's analysis of equities in apportionment actions between western states over fully appropriated streams.

Colorado provides a list of considerations derived from "a composite of the various equitable apportionment cases" on pages 30-32 of its brief. They are the result of misconstruing the holdings in the leading cases. We will examine each principle, and show how the facts and holdings of the cited cases do not support the proposition for which Colorado has used them. We will then restate the principle to properly summarize the Court's holdings in the cases.

A. One state will not be permitted to command the entire flow of an interstate stream "regardless of need or use." *Kansas v. Colorado*, 206 U.S. 46, 85, 101-102; *Connecticut v. Massachusetts*, 282 U.S. 660, 669-670; *New Jersey v. New York*, 283 U.S. 336, 342; *Washington v. Oregon*, 297 U.S. 517, 523, 526; *Colorado v. Kansas*, 320 U.S. 383, 393.

This consideration is not even a factor in the cases from which it is supposedly derived. The decision in both *Kansas v. Colorado, supra,* and *Colorado v. Kansas, supra,* resulted from a balancing of actual equitable interests derived from the use of water on opposite sides of a state boundary. There were existing uses in both states with interests dependent on the flow of the river. The decisions in *Connecticut v. Massachusetts, supra,* and *New Jersey v. New York, supra,* were based on the presence of available water and the lack of demonstrable injury to the plaintiff state. Neither factor exists in this case. Properly stated, the principle should read: A downstream state will not be permitted to command the entire flow of an interstate stream if its waters might be appropriated by an upstream state without injury to existing uses in the downstream state. When stated this way, *Kansas v. Colorado, Connecticut v. Massachusetts, New Jersey v. New York,* and *Colorado v. Kansas, supra,* would support the principle — in essence it was the holding in each case.

The fifth decision, however, *Washington v. Oregon, supra,* supports neither statement because of a critical difference in the facts that generated the dispute. Indeed, as Colorado states the principle, *Washington v. Oregon* not only does not support it, but to the contrary, stands for the opposite proposition, i.e., with respect to the Tum-a-Lum and Mill Creeks, one state did and could, according to the Court, command the entire flow of an interstate stream despite Washington's alleged need.[10] When the

[10] Colorado tries to evade the decision in *Washington v. Oregon* by urging that the Court decided the case on the basis of a "futile call," that is, the water of the Tum-a-Lum never would have reached the Washington users. (Colorado Brief at 28). Colorado misstates the case, however. As an evidentiary matter, the Master found that "(t)here is no satisfactory proof" except "(d)uring the period of water shortage, [when] only a small quantity of water would go by if the dams should be removed." 297 U.S. at 522-523. At times other than times of shortage, however, the problem was not a futile call at all, but rather one of laches or abandonment on the part of the Washington user, Gardena Farms, and estoppel against the State of Washington. 297 U.S. at 528-529.